

A NEW TRAP DESIGN FOR CAPTURING SPOTTED OWLS

CHARLES L. JOHNSON AND RICHARD T. REYNOLDS

USDA Forest Service, Rocky Mountain Research Station, 240 West Prospect Street,  
Fort Collins, CO 80526 U.S.A.

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Due to conditioned trap avoidance, Mexican Spotted Owls (*Strix occidentalis lucida*) are difficult to repeatedly capture. In studies requiring repeated captures (e.g., to replace radiotransmitters), it is necessary to either continually modify existing traps or develop new trap designs. In this paper, we describe a new board leg-hold trap that we developed for capturing Spotted Owls. This trap may be useful for other raptor species.

The trap consisted of a piece of 1/2" (1.27 cm) plywood

with a hole cut in the center. A live mouse was tethered in the center hole and a monofilament noose that surrounds the hole was pulled shut around the owl's legs when it attempted to capture the mouse (Fig. 1).

To construct the trap, a 5.72 cm radius hole was cut in the center of a 27 x 43 cm piece of plywood. Three 9.52-mm diameter holes were drilled 6.35 cm from the edge of the center hole and three 9.52-mm diameter wooden dowels, 4.5 cm long, were inserted and glued (Fig. 1). A 9.52-mm diameter hole was drilled 1.27 cm deep into the large end of three bottle corks. The three corks were glued onto the ends of the wooden dowels. A 7.62 x 3.81

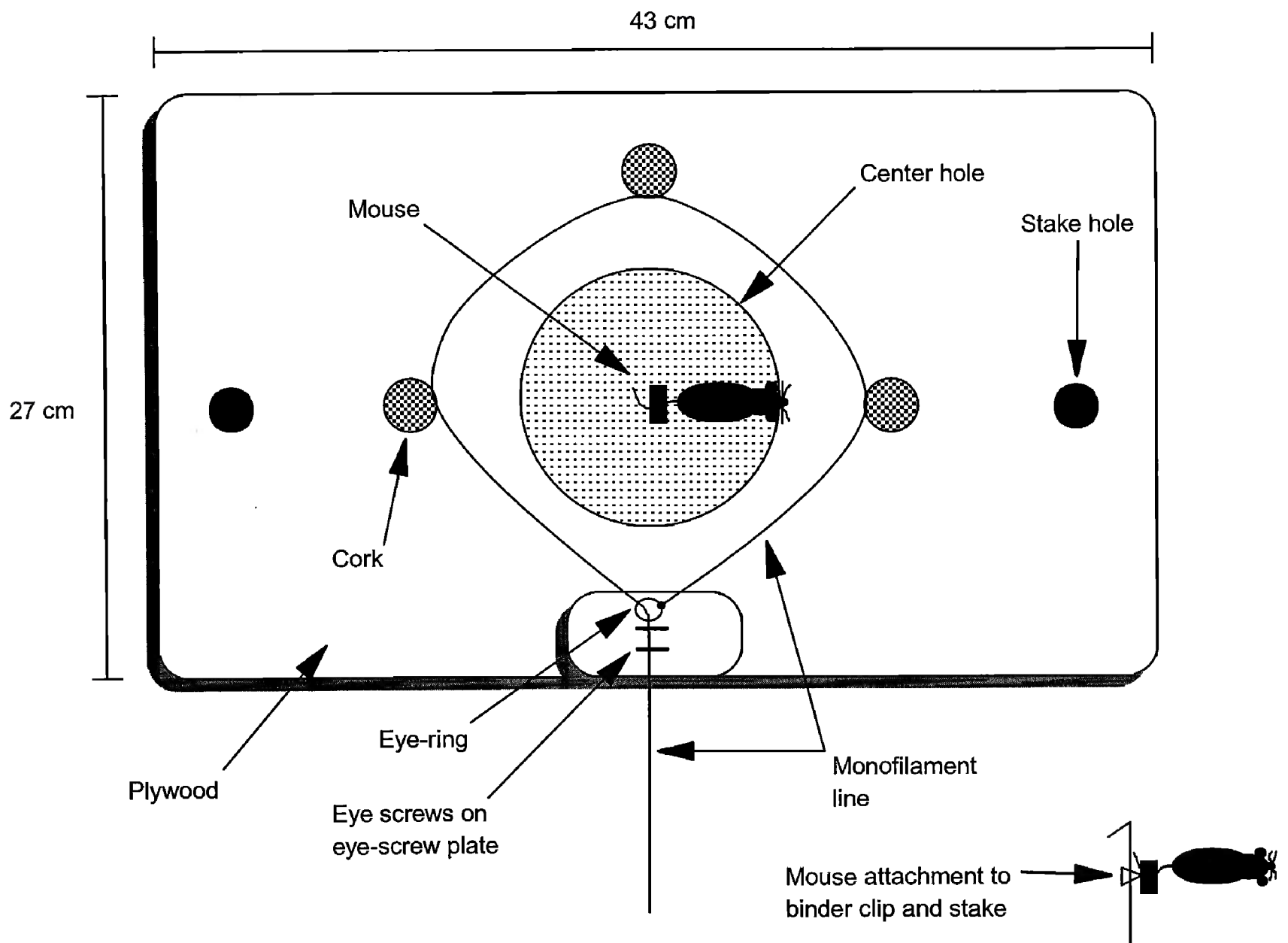


Figure 1. Diagram of the board leg-hold trap.

× 2.54 cm piece of wood was glued lengthwise at the edge of the plywood base, centered on the bait hole. To this piece of wood, two small eye screws were attached about 2.54 cm apart, facing the bait hole. The eye screws were smaller than the eye ring that was used to make the monofilament noose, so that the eye ring would not pass through the eye screws. Two small holes were drilled through the plywood base about 3 cm from the outer ends of the plywood. Small metal stakes are inserted through these holes to anchor the trap to the ground. With a razor blade or sharp knife, a horizontal slit was cut into the side of each cork, facing the bait hole. The trap was sanded to remove any sharp edges and splinters and the entire trap was painted to match the environment.

When trapping Spotted Owls, we first located the owl and placed the trap so that the owl could see it. The trap was staked to the ground and covered with litter or soil. The noose was then inserted in the cork slits so that the noose was fairly taut, with the end of the noose line running through the eye screws to the observer. A live mouse was tethered in the middle of the center hole by clipping a small black binder clip to its tail. The binder clip was attached to a small metal stake that was pushed completely into the ground allowing the mouse to move in circles within the center hole.

Once the owl's attention was on the mouse, we backed slowly away (6 m was often sufficient) while feeding out monofilament line. When the owl landed on the mouse, we pulled rapidly and held pressure on the monofilament line. After being caught, we quickly secured the

owl. This trap worked best with two people; one to hold the line and one to secure the owl. A small tape recorder, emitting mouse vocalizations and scurrying sounds, can also be placed near (or beneath) the trap to entice hesitant owls.

Although our trap is manually operated, we are aware that other more sophisticated noose traps have been developed for owls that are automatically tripped when the owl lands on the spring-loaded trigger mechanism (Eric Forsman pers. comm.). Although both types of traps may be effective, we think that the manually-operated version has several advantages. In particular, it is less complicated, cheap to construct, easily camouflaged, and allows the operator considerable flexibility regarding the best time to pull the noose shut. Although we have used our trap only to catch Spotted Owls, we believe it should also be effective for other owls and diurnal raptors.

RESUMEN.—Una variedad de trampas (de nudos, redes de niebla, bal chatri, etc.), han sido empleadas para la captura de buhos. Debido a su familiarización, usualmente es difícil atrapar en forma repetida a *Strix occidentalis*. Este artículo describe un tipo de trampa que permite en forma efectiva capturar a *Strix occidentalis* en Colorado.

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